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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,559	03/25/2002	Paul Meyer	214966	1742

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EXAMINER

COOLEY, CHARLES E

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/018,559	MEYER, PAUL	
	Examiner	Art Unit	
	Charles E. Cooley	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8, 10, 11, 13-15, 18, 19 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 5, 9, 12, 16, 17 and 20-22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/25/02 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: |

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OFFICE ACTION

1. This application has been assigned to Technology Center 1700, Art Unit 1723 and the following will apply for this application:

a. Please direct all written correspondence with the correct application serial number for this application to Art Unit 1723.

b. Telephone inquiries regarding this application should be directed to the Technology Center 1700 receptionist at ☎(703) 308-0651 or to the Examiner at ☎(703) 308-0112. Official facsimile correspondence filed before a final office action should be transmitted to ☎(703) 872-9306. Official facsimile correspondence which responds to a final office action should be transmitted to ☎(703) 872-9306. All *post-allowance* papers (e.g., Information Disclosure Statements, Rule 312 Amendments, petitions, etc.) should be mailed to **Box Issue Fee** or submitted via facsimile to ☎(703) 308-5864.

Priority

2. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d). NONE of the CERTIFIED copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

Information Disclosure Statement

3. Note the attached PTO-1449 form submitted with the Information Disclosure Statement filed 9 APR 2002.

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Drawings

4. The drawings are objected to because of the following informalities:

a. the different views (such as Figures 3 and 4) are not numbered separately in consecutive Arabic numerals in the order in which they appear on the drawing sheets (37 CFR 1.84(u)).

b. the drawings contain improper sectional views. The plane upon which a sectional view is taken should be indicated on the view from which the section is cut by a broken line. The ends of the broken line should be designated by Arabic or Roman numerals corresponding to the view number of the sectional view, and should have arrows to indicate the direction of sight (37 CFR 1.84(h)(3)). Correction is required.

For example, Figure 2 should be a sectional view taken along line 2-2 in Figure 1 (not sectional line C-C). All sectional views should be corrected in accordance with 37 CFR 1.84(h)(3).

Applicant should also ensure a proper one-to-one correspondence between the specification and drawings in accordance with MPEP 608.01(g) and 37 CFR 1.84(f). The brief description of the drawings and the descriptive portion of the specification require revision in accordance with the above drawing objections.

c. Figure 12 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Correction is required.

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5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description: "7" (page 10, line 20); "323" (page 17, line 30). Correction is required. Applicant should ensure all reference characters mentioned in the specification are included in the appropriate drawing Figure(s).

6. Applicant is required to submit a proposed drawing correction in response to this Office Action. Any proposal by the applicant for amendment of the drawings to cure defects must include a print or pen-and-ink sketch showing changes in *red ink* in accordance with MPEP § 608.02(v).

IMPORTANT NOTE: The filing of new formal drawings to correct the noted defect may be deferred until the application is allowed by the examiner, but the print or pen-and-ink sketch with proposed corrections shown in red ink is required in response to this Office Action, and *may not be deferred*.

Specification

7. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

8. The disclosure is objected to because of the following informalities:

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a. terms such as "centred" and "favourable" throughout the specification should be revised to reflect customary U.S. spelling.

Appropriate correction is required.

9. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

10. The title is acceptable.

Claim Rejections - 35 U.S.C. § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1 and 7 are rejected under 35 U.S.C. § 102(a) as being anticipated by WO 00/20759.

WO 00/20759 discloses a gear pump having a casing 112; gearwheels 122, 123; inlet 120; outlet 118; and the recited recesses 114 having a given cross-section in the casing wall.

13. Claims 1-4, 6-8, 10, and 13-15 are rejected under 35 U.S.C. § 102(b) as being anticipated by Uth et al. (US 5,855,927).

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Uth et al. (US 5,855,927) discloses a gear pump having a casing 1; gearwheels 2, 3; inlet 5 or 5'; outlet 6; the recited recesses having a given cross-section 14 in the casing wall; devices 24, 26, and 27 for allowing entrained gas to escape including a separate escape passage 27 in the casing.

Claim Rejections - 35 U.S.C. § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Uth et al. (US 5,855,927) in view of Froslev et al. (US 6,227,833).

Uth et al. (US 5,855,927) does not disclose the recited projection. Froslev et al. discloses a gear pump with toothed wheels in a casing. Proximate an outlet 11 in the casing is a projection adjacent the toothed wheels as seen in Fig. 8. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided the gear pump of Uth et al. with a projection as disclosed by Froslev et al. for the purpose of achieving very high pressures in the gear pump (col. 9, lines 26-33).

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16. Claim 18 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Uth et al. (US 5,855,927) in view of Fox (US 4,642,040).

Uth et al. (US 5,855,927) does not disclose a gearwheel being coaxial with a screw extruder. Fox discloses a gear pump 30a having a gear wheel 32 disposed coaxially with a screw 11a of an extruder. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have disposed a gear wheel of Uth et al. coaxially with a screw of an extruder as disclosed by Fox for the purpose of eliminating the need for a separate gear pump drive system yet which allows the extrudant to be accurately metered (col. 1, line 64-col. 2, line 2).

17. Claim 19 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Uth et al. (US 5,855,927) in view of WO 98/09792.

Uth et al. (US 5,855,927) does not disclose the outlet of the gear pump leading to an extruder. WO 98/09792 discloses a gear pump 1Z having an outlet leading to an extruder 2. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have disposed the outlet of the gear pump in Uth et al. such that it leads to an extruder as disclosed by WO 98/09792 since WO '792 teaches that the combination of a ger pump and extruder is well known (Page 1, second paragraph) and to aid in the extrusion of highly viscous compounds such as rubber.

18. Claim 23 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Uth et al. (US 5,855,927) in view of Becker et al. (US 6,623,673).

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Uth et al. (US 5,855,927) does not disclose the gear wheels being separately driven via a gearbox. Becker et al. discloses gear wheels 20 and 30 separately driven via a gearbox 40. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided the gear pump of Uth et al. with separately driven gear wheels via a gear box as disclosed by Becker et al. for the purpose of driving the gear wheels synchronously in opposition to each other to convey the medium being processed from the inlet to the outlet (col. 3, lines 45-55).

19. Claims 24-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Uth et al. (US 5,855,927) in view of Hasse (US 6,286,988).

Uth et al. (US 5,855,927) does not disclose the recited cut of the gear wheels or the passages in the end plates. Hasse discloses a gear pump with gear wheels 2 and 6 which are cut in a skew fashion and end plates 9 having passages 12 therein. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided the gear pump of Uth et al. with gear wheels having a cut in a skew fashion as disclosed by Hasse for the purpose of conveying material toward the center of the gear wheels and thus away from the end plates (col. 3, lines 5-10) and to permit removal of substances from the casing through the end plates via the passages.

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Allowable Subject Matter

20. Claims 5, 9, 12, 16, 17, 20, 21, and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited prior art discloses gear pump devices.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Charles Cooley whose telephone number is ☎ (703) 308-0112.

23. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1700 receptionist whose telephone number is ☎ (703) 308-0651.

Dated: **23 September 2003**



**Charles Cooley
Primary Examiner
Art Unit 1723**